



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,680	06/29/2001	Brad A. Armstrong	29	8703
7590	06/01/2005		EXAMINER	
Brad A. Armstrong P.O. Box 2048 Carson City, NV 89702			COBURN, CORBETT B	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/896,680	ARMSTRONG, BRAD A.
	<b>Examiner</b>	<b>Art Unit</b>
	Corbett B. Coburn	3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 01 March 2005.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-56 is/are pending in the application.  
4a) Of the above claim(s) 52 and 53 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-51 and 54-56 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/01/04.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 1 November 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

2. Applicant has also listed several references on the IDS that have already been considered. Should the application ever go to issue, this would cause problems for the printer. Applicant should redo the IDS listing only those references that have not already appeared on an IDS or Notice of References Cited in the case.

### ***Election/Restrictions***

3. Newly submitted claims 52 & 53 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: They are directed to a method of controlling a video game and not to an apparatus for doing so. The apparatus may be used for games that do not include simulated cars.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 52 & 53 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Note that claims 54-56 are drawn to a method of manufacturing a game controller. These would normally be considered a non-elected invention and would also be withdrawn. However,

since they contain no details of the manufacturing process, Examiner will include them with the apparatus claims. Should Applicant amend these claims to include the details of the method of manufacturing, the claims may be withdrawn as non-elected.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-17, 20-24, 30-31, 39, 42, 50, 51 & 54-56 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious Japanese Unexamined Utility Model Application Publication No. 5-87760 to Furukawa ("Furukawa").

In regard to claims 1-3, 6-7, 16-17, 20, 23, 30-31, 39, 50, 51 & 54-56, Furukawa teaches a game machine capable of driving a display apparatus (8:0011 hereinafter the notation relates to "page num: paragraph num"), a game controller housing a four-way rocker and a plurality of player depressible buttons that are useable with two hands (Fig. 1), pressure sensitive sensors contained in the controller housing for detecting operator input and generating an analog representation of the force used (5:0006-0007), a means for outputting pressure sensitive signal to game machine (Fig. 1), electrodes disposed on a substrate (7:0009), a rubber dome cap positioned over electrodes (Fig. 2 and 3) that is depressible with applied pressure (3:0002), the dome cap having a convex shaped portion (Fig. 2 and 3), and the dome cap having an underside convex extrusion over electrodes (Fig. 2 and 3).

Applicant has amended the claims to indicate that the circuit trace material is supported

under a sheet. Examiner interprets this sheet to be the elastomeric material used to make the resilient dome. Clearly, Furukawa teaches such a sheet.

Furukawa clearly teaches buttons 19 & 20 on the right side of the controller. Since the only switches discussed in the reference are analog switches such as those depicted in figures 2 and 3, Examiner believes these switches to be analog. Furthermore, the reference specifically teaches that the use of analog switches is not restricted to the cross key (12). (7:0013-0015) Thus Examiner asserts that the right-side buttons (19 & 20) are analog buttons.

Even if we assume that the buttons shown in the reference are not necessarily analog, it would have been obvious to one of ordinary skill in the art at the time of the invention to have made them analog. Use of analog buttons is clearly well known in the art. It is also well known that the fewer types of parts used to assemble a controller, the lower the cost of manufacture. Furukawa teaches the use of analog buttons in one part of the controller. It would keep manufacturing costs down to use the same type of button throughout. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used analog buttons on the right side (as well as the left side) in order to reduce manufacturing costs.

In regard to claims 8, Furukawa teaches a dome cap positioned over a first and second circuit trace, where the circuit traces are in close proximity to another (Fig. 2-3).

In regard to claim 9, Furukawa teaches conductive material positioned to contact circuit traces with applied pressure (Fig. 2).

In regard to claims 10 and 31, Furukawa teaches a convex portion positioned to press against circuit trace material (Fig. 2-3).

In regard to claim 11, Furukawa teaches the convex portion is deformable with pressed against circuit trace material (5:0007).

In regard to claim 12, Furukawa teaches a left and right hand area of the housing (Fig. 1).

In regard to claim 13 and 42, Furukawa teaches a four-way rocker exposed in the left hand area (Fig. 1).

In regard to claims 14-15, Furukawa teaches four analog sensors associates with the four-way rocker, where each section of the rocker has the resilient dome cap (6:0009).

In regard to claims 21-22, Furukawa teaches four analog sensors, which allows at least one device and one electricity-manipulating device to be separate and one device to be a single device.

In regard to claim 24, Furukawa teaches variable conductance according to the degree of pressing force (5:0007).

***Claim Rejections -35 USC ~ 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-5, 18-19, 25-29, 32-38, 40-41, and 43-47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claims 1-3, 6-17, 20-24, 30-31, 39, and 42 above, and further in view of Japanese Unexamined Patent Application Publication No. 7-302159 to Terajima et al, ("Terajima").

In regard to claims 18, 25-26, 32-36, and 43-44 Furukawa teaches the limitations as discussed above, but does not expressly teach contact electrode design layout. Terajima teaches interdigitated circuit traces where different level of pressure causes more surface area of the convex button underside to contact additional circuit traces (Fig. 10). One would be motivated to

modify Furukawa to use interdigitated circuit traces to insure that different level of pressure exerted on the convex button underside would allow the pressure variance to be detectable and useable as additional input. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Furukawa to use the interdigitated circuit traces taught by Terajima as another method for guaranteeing pressure sensitive input.

In regard to claim 19, Furukawa in view of Terajima teaches the limitations as discussed above including a plurality of buttons disposed on the right hand side of the game controller, but does not teach at least four buttons in the same area. However, the exact number of buttons lacking criticality, duplication of that which is known in the art is considered well within the capabilities of one of ordinary skill. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have at least four buttons disposed in the controller to increase the player input convenience.

In regard to claims 27-29, Furukawa in view of Terajima teaches the limitations as disclosed above. Additionally, Terajima teaches an active integrated circuit for converting analog data to digital data (Fig. 5). The converter serves to define a micro-controller and an ASIC.

In regard to claims 37-38, 40-41, 45, and 47, Furukawa in view of Terajima teaches the limitations as disclosed above, but is silent with respect to the appendage intended for use with the handheld controller. However, the specific appendage used to operate the handheld controller, lacking criticality, would not serve to further limit the device or provide distinctness over existing prior art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow an operator use any appendage to operate device controls.

In regard to claim 46, Furukawa in view of Terajima teaches the limitations as disclosed

above and additionally Terajima teaches a deformable surface having an apex (Fig. 10).

***Double Patenting***

8. Claims 1-51 & 54-56 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-76 of U.S. Patent No. 6,343,911. Although the conflicting claims are not identical, they are not patentably distinct from each other because the device claimed in the patent appears to have all of the salient features of the instant claims. In particular, patented claim 53 teaches the right-hand analog button that is the point of novelty of the current device.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-49 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's "Declaration" is not in the proper form. Furthermore, even if it were in proper form, it is of no probative value. Applicant's ability as a negotiator of contracts is not at issue in this case. Nor is Sony's opinion of any reference. As for commercial success, there is no nexus between the claimed features and any alleged commercial success.

11. Examiner cannot help noticing that Applicant has a tendency to grow prolix when presenting arguments. Applicant has also demonstrated a marked tendency to repeat arguments that have already been addressed. Neither of these tendencies advances prosecution. In the interest to advancing prosecution of the case, any argument that Applicant submits in answer to this office action that is not directed to the merits of the office action will be considered non-responsive. Examiner does not set office policy, nor can Examiner do anything about what may

or may not have happened in the past. If Applicant has issues with the actions of previous examiner or with office policy, Applicant is invited to file a petition or an appeal as appropriate.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reference Name	US Patent Number	Applicability
Cheng	5,645,277	Interchangeability of right and left buttons
Shirai	4,687,200	Use of elastomeric switch
Ogata et al.	6,452,786	Analog button on right
Sayler et al.	5,923,317	Interchangeability of right and left buttons
Okada et al.	5,184,830	Right button fire – left button move
Li	6,225,977	Analog button on right

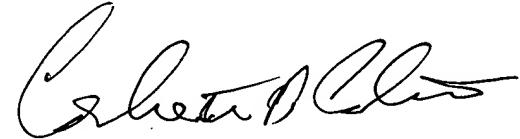
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbett B. Coburn whose telephone number is (571) 272-4447. The examiner can normally be reached on 8-5:30, Monday-Friday, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary, Jessica Harrison can be reached on (571) 272-4449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 3714

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Corbett B. Coburn  
Examiner  
Art Unit 3714